In the Claims

The following Listing of Claims replaces all prior versions in the application:

LISTING OF CLAIMS

1. (Currently amended) Method for determining ~~the~~ a reclose time of a circuit breaker (6) on an electric network, said network comprising:

- a high voltage source (S),
- a three-phase transmission line (L),
- a circuit breaker (6) comprising at least three pairs of contacts (7A,8A; 7B,8B; 7C,8C), each pair being associated with one of the three phases (A, B C) of said line (L) and ~~enabling~~ ~~the~~allowing an interruption of ~~any~~ a current circulating between said source (S) and said line (L) by separating said contacts in the event of a fault on the associated phase, the first contact being on the source side and the second contact being on the line side,
- a shunt compensation reactor (5) to compensate capacitive reactive power of said line (L),

said reclose time being determined in the event of separation of the contacts of each pair of contacts in the presence of a fault on one of the three phases,

said determination of said reclose time being made using the following steps:

- measuring ~~the~~ a voltage (UL_{A0}, UL_{B0}, UL_{C0}) between the line side contact and ~~earth~~ ground for each of the phases,
- measuring ~~the~~ a voltage (US_{A0}) between the source side contact and ~~earth~~ ground for at least one phase,
- determining ~~the~~ a voltage (US_{A0}, US_{B0}, US_{C0}) between the source side contact and ~~earth~~ ground for each of the phases,

said determination of said reclose time being characterized in that it also comprises the following steps:

- calculating, for two separate phases called first and second phases, the voltage difference (UL_{AB}, UL_{AC}, UL_{BC}) between the line side contact and ~~earth~~ ground for said first phase, and the voltage difference between the line side contact and ~~earth~~ ground for said second phase, the calculation being made for each pair of separate phases,
- calculating the voltage difference (US_{AB}, US_{AC}, US_{BC}) between the source side contact and

~~earth~~ ground for said first phase, and the voltage difference between the source side contact and ~~earth~~ ground for said second phase, the calculation being made for each pair of separate phases,

- determining said reclose time on the basis of said voltage differences.

2. (Currently amended) Method ~~for determining the reclose time of a circuit breaker on an electric network~~ according to ~~the preceding~~ claim 1, characterized in that said determination of said reclose time (T) is made by comparing said voltage differences (US_{BC}, UL_{BC}) between two healthy phases on the line side and source side.

3. (Currently amended) Method ~~for determining the reclose time of a circuit breaker on an electric network as in the preceding~~ according to claim 1, characterized in that said determination of said reclose time (T) is made by determining the time at which the two signals corresponding to said voltage differences (US_{BC}, UL_{BC}) between two healthy phases on the line side and source side are substantially equal and show the same monotony over a non-zero interval about said time.

4. (Currently amended) Method ~~for determining the reclose time of a circuit breaker on an electric network as in any of the preceding~~ according to claims 1, characterized in that said determination of the voltage (US_{A0}, US_{B0}, US_{C0}) between the source side contact and ~~earth~~ ground for each of the phases is made by 120° and 240° phase shifting of said voltage (US_{A0}) measured between the source side contact and ~~earth~~ ground for at least one phase.

5. (Currently amended) Method ~~for determining the reclose time of a circuit breaker on an electric network as in any of the preceding~~ according to claims 1, characterized in that said measurement of the voltage between the line side contact and ~~earth~~ ground for each phase is made using a voltage transformer (4).